

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 4, 2006. Claims 1 to 21 are pending in the application, of which Claims 1, 10 to 13 and 17 to 19 are independent. Reconsideration and further examination are respectfully requested.

Claims 1, 3 to 13 and 17 to 21 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,058,277 (Streefkerk) in view of U.S. Patent No. 5,579,447 (Salgado). Claims 2, 15 and 16 were rejected under 35 U.S.C. § 103(a) over Streefkerk and Salgado in view of U.S. Patent No. 6,891,632 (Schwartz). Claim 14 was rejected under 35 U.S.C. § 103(a) over Streefkerk and Salgado in view of U.S. Patent No. 6,816,270 (Cooper). Reconsideration and withdrawal of this rejection are respectfully requested.

The present invention concerns information processing apparatuses that store a plurality of print profiles (or print modes) for one printing apparatus where the user may select a desired one of the print profiles (or print modes) such that printing of draw information is performed based on the selected print profile (or print mode). The print time required to print the same draw information varies print profile by print profile or print mode by print mode. The selection of a certain print profile (or print mode) may lead to a print time which is too much longer than that the user estimates. An information processing apparatuses in accordance with the present invention provides a resolution by estimating print time for multiple print profiles and displaying them to a user.

Turning to specific claim language, amended independent Claim 1 is directed to an information processing apparatus that serves as a host computer for forming print data which can be interpreted by a printing apparatus. The apparatus includes a selection unit which selects one of a plurality of print profiles provided for one printing apparatus stored in a storage unit,

each print profile comprising a combination of a plurality of pieces of print setting information; a reception unit which receives draw information based on a print document formed by an application in accordance with a printing instruction; an estimation unit which estimates, based on the draw information received by the reception unit and the print profile selected by the selection unit, a print time for the selected print profile required for a printing process of the received draw information, and which estimates, based on the received draw information and a print profile not selected by the selection unit, a print time for the non-selected print profile required for a printing process of the received draw information; a display control unit which displays the print time for the selected print profile and the print time for the non-selected print profile estimated by the estimation unit for the draw information before the print data is formed; and a forming control unit which, if execution of the printing process is determined after the plurality of print times are displayed by the display control unit, forms the print data which can be interpreted by the printing apparatus based on the draw information received by the reception unit and the print profile selected by the selection unit and which, if execution of the printing process is canceled after the plurality of print times are displayed by the display control unit, cancels forming of the print data.

Independent Claims 10, 11 and 12 are respectively directed to a method, computer-readable memory medium and computer-executable program corresponding to Claim 1.

The applied references, namely Streefkerk and Salgado, either alone or in combination, are not seen to disclose or to suggest the features of independent Claims 1, 10, 11 and 12. In particular, Streefkerk and Salgado, either alone or in combination, are not seen to disclose or to suggest at least the features of selecting one of a plurality of print profiles provided

for one printing apparatus stored in a storage unit, each print profile comprising a combination of a plurality of pieces of print setting information, estimating a print time required for a printing process of the received draw information for the selected print profile and for a print profile not selected, displaying the print time for the selected print profile and the print time for the non-selected print profile and forming, if execution of the printing process is determined after the plurality of print times are displayed in said display control step, the print data which can be interpreted by the printing apparatus based on the draw information received in said receiving step and the print profile selected in said selecting step and which, if execution of the printing process is canceled after the plurality of print times are displayed in said display control step, cancels forming of the print data.

Streefkerk discloses an information processing apparatus that allows the user to shift one printer to another. In order to realize this, Streefkerk simultaneously displays a plurality of print times for respective printers and enables any selected printer to process a print order. Specifically, the information processing apparatus of Streefkerk is designed to simultaneously display the print times for respective printers so as to allow the user to select one of the printers that can process a print order in the shortest time.

Salgado discloses a printer that accurately estimates a print time required to print a print job which has been already obtained and displays the estimated time. In order to realize this, Salgado executes mapping of every page of the job into images and estimates an image processing time for each page, and estimates the print time based on the image processing times together with other required processing times.

Furthermore, Streefkerk is directed to an information processing apparatus, whereas Salgado is directed to a printer. Moreover, the information processing apparatus of the information processing apparatus of Streefkerk displays a plurality of print times for respective printers before print data is generated, whereas the printer of Salgado estimates and displays a print time for print data after the print job is generated by an information processing apparatus. As Streefkerk and Salgado completely differ in those points from each other, Applicants submit that modifying Streefkerk in light of Salgado is improper as there would be no motivation to do so.

Even if they were combined, Streefkerk and Salgado fail to disclose or suggest estimating both a print time for a selected print profile and a print time for a non-selected print profile, nor do they disclose displaying the print times before print data is formed.

Moreover, even if they were combined, Streefkerk and Salgado fail to disclose or suggest forming the print data or canceling forming of the print data after considering the print time for the selected print profile and the print time for the non-selected print profile based on a user selection as featured in Claims 1, 10, 11 and 12.

Therefore, in light of the deficiencies of Streefkerk and Salgado as discussed above, Applicants submit that amended independent Claims 1, 10, 11 and 12 are now in condition for allowance and respectfully request same.

Amended independent Claim 13 is directed to information processing apparatus that serves as a host computer for forming print data which can be interpreted by a printing apparatus. The information processing apparatus includes a reception unit which receives draw information based on a print document formed by an application in accordance with a printing instruction; an analysis unit which analyzes the draw information received by the reception unit; an estimation unit which estimates a plurality of print times respectively corresponding to a

plurality of print modes, each required for a printing process of the draw information received by the reception unit based on an analysis result obtained by the analysis unit and the plurality of print modes for one printing apparatus stored in a storage unit, each print mode comprising a combination of a plurality of pieces of print setting information; a display control unit which displays in correspondence to the plurality of print modes the plurality of print times estimated by estimation unit for the draw information; a selection unit which selects one of the plurality of print modes displayed by the display control unit in accordance with an instruction input means via a user interface; a forming unit which forms the print data based on the one print mode selected by the selection unit and the draw information received by the reception unit; and a transmission unit which transmits the print data formed by the forming unit to the printing apparatus.

Independent Claims 17, 18 and 19 are respectively directed to a method, computer-readable memory medium and computer-executable program which generally correspond with Claim 13.

The applied references, namely Streefkerk and Salgado, either alone or in combination, are not seen to disclose or to suggest the features of independent Claims 13, 17, 18 and 19. In particular, Streefkerk and Salgado, either alone or in combination, are not seen to disclose or to suggest at least the features of estimating a plurality of print times respectively corresponding to a plurality of print modes, each required for a printing process of the draw information, based on an analysis result and the plurality of print modes for one printing apparatus stored in a storage unit, each print mode comprising a combination of a plurality of pieces of print setting information, then displaying in correspondence to the plurality of print modes the plurality of print times estimated in said estimating step for the draw information and

selecting one of the plurality of print modes displayed in accordance with an instruction input via a user interface then transmitting the print data formed in said forming step to the printing apparatus.

In particular, Streefkerk and Salgado fail to disclose or suggest displaying the plurality of estimated print times in correspondence to the respective print modes, so as to allow the user to select a desired one print mode, or selecting a desired one of the displayed print modes. Although Streefkerk shows a screen for selection of a printer for printing a print order in Fig. 4 (column 4, lines 47 to 49), the content of the display completely differs from the contents of a display in accordance with Claims 13, 17, 18 and 19. Nothing in Salgado is seen to cure such a deficiency in Streefkerk.

In light of these deficiencies of Streefkerk and Salgado, Applicants submit that amended independent Claims 13, 17, 18 and 19 are now in condition for allowance and respectfully request same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

REQUEST FOR INTERVIEW

Applicants request that the Examiner conduct a personal or telephonic interview with Applicants' representative regarding this case. If such an interview has not been conducted before the Examiner takes this Amendment into consideration, Applicants respectfully request that the Examiner contact Applicants' representative as indicated below.

CONCLUSION

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Frank L. Cire', with a long horizontal stroke extending to the right.

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